

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
PATENT EXAMINING OPERATION

Applicants: Greenwald et al.

Serial No.: Divisional of USSN 09/506,135, filed on February 17, 2000

Filed: Concurrently herewith

For: TISSUE SPECIMEN HOLDER

Examiner: Henry. J. Art Unit: 2872

Atty Docket: ML-0492DIV

PRELIMINARY AMENDMENT

Asst. Commissioner of Patents  
Washington, D.C. 20231

Dear Sir:

Please amend the above-identified patent application as follows:

In the Specification

Please replace the first paragraph on page 1 as follows:

This application is a divisional of U.S. Patent Application Serial No. 09/506,135, filed February 17, 2000, which claims the priority benefit of U.S. Provisional Application No. 60/120,470, filed February 17, 1999, which is herein incorporated by reference.

Please replace the paragraph at page 6, line 21, to page 7, line 9, as follows:

When the tissue specimen 34 is placed in the tray in the base 26 and over the window 32 as shown in FIGS. 3 and 4, the specimen 34 is held down by the clamp mechanism 40. The clamp mechanism which is illustrated has hooked or barbed fingers which are hinged to the sidewalls 28 at spaced locations. The mechanisms include springs 42 which provide over center locks, such that when the fingers are pressed down beyond their axis of rotation, they are held down by the springs 42. Other clamping mechanisms may be used such as meshes or a membrane overlay or a permeable or perforated bag. Fiducial marks, which can be visualized or imaged, may be provided in the case of meshes or membranes. The use of a membrane or mesh may be preferable since the specimen 34 may be moved under the membrane. The membrane specimen tray or cassette is the subject matter of a companion application filed concurrently

herewith in the name of Bill Fox, et al., U.S. Provisional Application No. 60/120,534, filed February 17, 1999, now pending as U.S. Patent Application No. 09/502,252, filed February 17, 2000. Further information as to the use of the markings on the clamping mechanism (the mesh or membrane) to mark locations of the image tissue is contained in a co-pending International Patent Application No. PCT/US99/21116, and U.S. Patent Application, filed in the names of Roger J. Greenwald and James M. Zavislan, serial number 60/100,176, filed September 14, 1998, now pending as U.S. Patent Application No. 09/786,902, filed March 9, 2001, having priority to U.S. Provisional Application No. 60/100,176 through International Patent Application No. PCT/US99/21116. The purpose of the clamps is to keep the tissue stationary during examination and also provide a means to lightly compress the tissue surface against the window. Alternatively, the clamps may provide tension to pull the tissue surface taut. Holding the tissue with either compression normal to the window or in tension parallel to the window (or both) tends to reduce the surface texture, or corrugation, peak to valley depth.

In the Claims

Please cancel Claims 1-8 and 12-20.

Please rewrite Claim 9 as follows:

9. (amended) An apparatus for imaging excised tissue having a refractive index comprising:

    a tray upon which excised tissue is disposed;  
    means for clamping said excised tissue upon said tray; and  
    optics directed towards the excised tissue through a portion of said tray in which said tray contains an immersion media having a refractive index matching the refractive index of said excised tissue.

Please add new Claims 21-35:

21. (new) The apparatus according to Claim 9 wherein said clamping means represents one or more fingers capable of holding said excised tissue upon said tray.

22. (new) The holder according to Claim 21 wherein said each of said fingers has a spring biasing the finger to hold said excised tissue upon said tray.

23. (new) The apparatus according to Claim 9 wherein said clamping means has a mesh capable of holding said excised tissue upon said tray.

24. (new) The apparatus according to Claim 9 wherein said clamping means has a membrane capable of holding said excised tissue upon said tray.

25. (new) A holder for facilitating imaging of excised tissue comprising a container having a window upon which said excised tissue is disposed, and at least one clamp member extending into said container onto said excised tissue capable of restraining said excised tissue in a position with respect to said window, wherein said excised tissue is imagable through said window.

26. (new) The holder according to Claim 25 wherein said clamping member represents one or more fingers capable of restraining said excised tissue in a position with respect to said window.

27. (new) The holder according to Claim 26 wherein said each of said fingers has a spring biasing the finger to restrain said excised tissue with respect to said window.

28. (new) The holder according to Claim 25 wherein said clamping member represents a mesh capable of restraining said excised tissue in a position with respect to said window.

29. (new) The holder according to Claim 25 wherein said clamping member represents a membrane capable of restraining said excised tissue in a position with respect to said window.

30. (new) A method for imaging excised tissue comprising the steps of:  
providing a container having a surface for placement of said tissue;  
restraining said tissue in said container against said surface; and  
imaging said tissue specimen through at least part of said surface of said container.

31. (new) The method according to Claim 30 wherein said restraining step is carried out with the aid of one or more members extending into said container.

32. (new) The method according to Claim 31 wherein said members represent fingers.

33. (new) The method according to Claim 32 wherein said restraining step further comprises the step of biasing each of said fingers to restrain said tissue against said surface.

34. (new) The method according to Claim 30 wherein said restraining step is carried out with the aid of a mesh in said container.

35. (new) The method according to Claim 30 wherein said restraining step is carried out with the aid of a membrane in said container.

Remarks

Please enter the above amendments in the application for consideration by the Examiner.

Respectfully submitted,

Dated: October 9, 2001



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APPENDIX

**MARKED-UP VERSION OF THE FIRST PARAGRAPH ON PAGE 1:**

This application is a divisional of U.S. Patent Application Serial No. 09/506,135, filed February 17, 2000, [This application claims] which claims the priority benefit of U.S. Provisional Application No. 60/120,470, filed February 17, 1999, which is herein incorporated by reference.

**MARKED-UP VERSION OF PARAGRAPH BRIDGING PAGES 6 AND 7:**

When the tissue specimen 34 is placed in the tray in the base 26 and over the window 32 as shown in FIGS. 3 and 4, the specimen 34 is held down by the clamp mechanism 40. The clamp mechanism which is illustrated has hooked or barbed fingers which are hinged to the sidewalls 28 at spaced locations. The mechanisms include springs 42 which provide over center locks, such that when the fingers are pressed down beyond their axis of rotation, they are held down by the springs 42. Other clamping mechanisms may be used such as meshes or a membrane overlay or a permeable or perforated bag. Fiducial marks, which can be visualized or imaged, may be provided in the case of meshes or membranes. The use of a membrane or mesh may be preferable since the specimen 34 may be moved under the membrane. The membrane specimen tray or cassette is the subject matter of a companion application filed concurrently herewith in the name of Bill Fox, et al., U.S. Provisional Application No. 60/120,534, filed February 17, 1999, now pending as U.S. Patent Application No. 09/502,252, filed February 17, 2000. Further information as to the use of the markings on the clamping mechanism (the mesh or membrane) to mark locations of the image tissue is contained in a co-pending International Patent Application No. PCT/US99/21116, and U.S. Patent Application, filed in the names of Roger J. Greenwald and James M. Zavislans, serial number 60/100,176, filed September 14, 1998, now pending as U.S. Patent Application No. 09/786,902, filed March 9, 2001, having priority to U.S. Provisional Application No. 60/100,176 through International Patent Application No. PCT/US99/21116. The purpose of the clamps is to keep the tissue stationary during examination and also provide a means to lightly compress the tissue surface against the window. Alternatively, the clamps may provide tension to pull the tissue surface taut. Holding the tissue with either compression normal to the window or in tension parallel to the window (or both) tends to reduce the surface texture, or corrugation, peak to valley depth.

**MARKED-UP VERSION OF AMENDED CLAIM 9**

9. (amended) An apparatus for imaging excised tissue having a refractive index comprising:

a tray upon which excised tissue is disposed; [and]

means for clamping said excised tissue upon said tray; and

optics directed towards the excised tissue through a portion of said tray in which said tray contains an immersion media having a refractive index matching the refractive index of said excised tissue.

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